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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,687	07/24/2001	Moshe Shoham	10892-003-999	7153

24341 7590 06/05/2003

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EXAMINER

NGUYEN, VI X

ART UNIT	PAPER NUMBER
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3731

DATE MAILED: 06/05/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/912,687

Applicant(s)

SHOHAM, MOSHE

Examiner

Victor X Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-6,8-13 and 33-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-13 and 33-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 USC § 112

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 6, 8, 10-12 and 33-35 are rejected under 35 U.S.C. 102 (e) as being anticipated by Mittelstadt et al (U.S. 6,322,567).

Regarding claims 1, figures 1-2 and 4, Mittelstadt et al disclose a device having all the limitations as recited in the above listed claims, including: a surgical robot (11); an attachment member (70) configures to attach the surgical robot; a controller programmed (22) prior to the surgical procedure directs the robot to position at the surgical site; and wherein the robot includes at least 3 actuators (42) which mounts on a base member (fig. 2). The actuator is configured for at least translational or rotational movement (col. 8, lines 1-15).

Regarding claims 6, 8 and 10, wherein the robot (11) includes a parallel robot (fig. 2, col. 7, lines 39-65); wherein the attachment member (70) includes a robot; and wherein the bone attachment portion includes a wire (48, fig. 2) which configures to be received in bone (50).

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Regarding claims 11-12, wherein the controller includes a cpu and user interface (13) which communicates with the robot. The cpu contains a program for guiding the robot based on data generated from the surgical site images; and wherein the surgical site images are created prior to each surgical procedure a new location for the support member (col.2, lines 39-67 and col. 3, lines 51-67).

Regarding claims 33-35, the controller is further programmed to locate the surgical robot with respect to a patient anatomy which based on at least three dimensional patient image; wherein the controller is further programmed with instructions for execution of a surgical plan; and wherein the controller is further programmed with instructions for registering the surgical robot positionally with at least one pre-operative image of a patient (col. 3, lines 51-67 and col. 4, lines 4-31).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 13 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Mittelstadt et al (6,322,567). Mittelstadt et al disclose a surgical system including all limitations substantially as claimed ; however, Mittelstadt et al do not disclose at least 4 actuators that extend outward from the base member. It would have been obvious to one having ordinary skill in the art at the time the invention was made to construct 4 actuators

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mounted on a base, since it had been held that rearranging parts of an invention involve only routine skill in the art. In re Japikse, 86 USPQ 70.

Claims 3-5 and 9 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Mittelstadt et al in view of Jensen et al (5,814,038).

Mittelstadt et al teach all limitations substantially as claimed except the bone attachment portion includes a clamp. Jensen et al teach the bone attachment portion includes a clamp (fig. 1, item 14, col. 7, lines 51-60) in order to grasp and manipulate instrument efficiently under the surgeon's control. It would have been obvious to one having ordinary skill in the art at the time the invention to modify Mittelstadt et al by adding the bone attachment portion includes a clamp in order to grasp and manipulate instrument efficiently under the surgeon's control.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat. No. 6,322,567 to Mittelstadt et al U.S. Pat. No. 6,231,526 to Taylor et al
In the first Rejection Office Action, claims 2-5, 7 and 13 were indicated as allowable if rewritten in independent form. The claims were amended accordingly. However, in light of a new interpretation of the Mittelstadt et al reference, all of the indicated allowable subject matter is now rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor X Nguyen whose telephone number is (703) 305-4898. The examiner can normally be reached on M-F (8-4.30 P.M).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Milano can be reached on (703) 308-2496. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3590 for regular communications and (703) 305-3590 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.

Victor X Nguyen
Examiner
Art Unit 3731

vn *vn*
May 26, 2003

Kevin T. Truong
KEVIN T. TRUONG
PRIMARY EXAMINER
5/28/03